

## Federal Communications Commission

## §73.37

be rounded downward to the next nearest figure and the RMS adjusted accordingly.

[50 FR 18821, May 2, 1985, as amended at 53 FR 1031, Jan. 15, 1988]

### 73.33 Antenna systems; showing required.

(a) An application for authority to install a broadcast antenna shall specify a definite site and include full details of the antenna design and expected performance.

(b) All data necessary to show compliance with the terms and conditions of the construction permit must be filed with the license application. If the station is using a directional antenna, a proof of performance must also be filed.

[28 FR 13574, Dec. 14, 1963, as amended at 37 FR 25840, Dec. 5, 1972]

### §73.35 Calculation of improvement factors.

A petition for an allotment (See §73.30) in the 1605–1705 kHz band filed by an existing fulltime AM station licensed in the 535–1605 kHz band will be ranked according to the station's calculated improvement factor. (See §73.30). Improvement factors relate to both nighttime and daytime interference conditions and are based on two distinct considerations: (a) Service area lost by other stations due to interference caused by the subject station, and (b) service area of the subject station. These considerations are represented by a ratio. The ratio consists, where applicable, of two separate additive components, one for nighttime and one for daytime. For the nighttime component, to determine the numerator of the ratio (first consideration), calculate the RSS and associated service area of the stations (co- and adjacent channel) to which the subject station causes nighttime interference. Next, repeat the RSS and service area calculations excluding the subject station. The cumulative gain in the above service area is the numerator of the ratio. The denominator (second consideration) is the subject station's interference-free service area. For the daytime component, the composite amount of service lost by co-channel and adjacent channel stations, each

taken individually, that are affected by the subject station, excluding the effects of other assignments during each study, will be used as the numerator of the daytime improvement factor. The denominator will consist of the actual daytime service area (0.5 mV/m contour) less any area lost to interference from other assignments. The value of this combined ratio will constitute the petitioner's improvement factor. Notwithstanding the requirements of §73.153, for uniform comparisons and simplicity, measurement data will not be used for determining improvement factors and FCC figure M-3 ground conductivity values are to be used exclusively in accordance with the pertinent provisions of §73.183(c)(1).

[56 FR 64858, Dec. 12, 1991]

### §73.37 Applications for broadcast facilities, showing required.

(a) No application will be accepted for a new station if the proposed operation would involve overlap of signal strength contours with any other station as set forth below in this paragraph; and no application will be accepted for a change of the facilities of an existing station if the proposed change would involve such overlap where there is not already such overlap between the stations involved:

Frequency separation (kHz)	Contour of proposed station (classes B, C and D) (mV/m)	Contour of any other station (mV/m)
0 .....	0.005	0.100 (Class A).
	0.025	0.500 (Other classes).
	0.500	0.025 (All classes).
10 .....	0.250	0.500 (All classes).
	0.500	0.250 (All classes).
20 .....	5	5 (All classes).
	5	5 (All classes).
30 .....	25	25 (All classes).

(b) In determining overlap received, an application for a new Class C station with daytime power of 250 watts, or greater, shall be considered on the assumption that both the proposed operation and all existing Class C stations operate with 250 watts and utilize non-directional antennas.

(c) If otherwise consistent with the public interest, an application requesting an increase in the daytime power of an existing Class C station on a local